



## Planning Fire Safety Strategy + Fire Statement

Project: The Barn Hotel, Ruislip, London

Project Reference: FE1523

Revision: 2

Date: March 2023

# 1 DOCUMENT TRACKER & REPORT OVERVIEW

Project Address	The Barn Hotel, West End Road, Ruislip HA4 6JB			
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## EXECUTIVE SUMMARY

Solas Realta Ltd has been appointed to produce a Planning Fire Safety Strategy & Fire Statement for the proposed new development at The Barn Hotel, West End Road, Ruislip HA4 6JB, consisting of two residential blocks, along with nine dwellinghouses.

Approved Document B (AD B) will be the design guidance documents employed in order to indicate that the functional requirements of Part B of the Building Regulations have been satisfied. It will be complemented by BS 9991, for design provisions not covered in AD B (i.e. open-plan flats).

This report is aimed at only providing supporting information for this planning application and does not represent a detailed fire safety strategy (to be developed at RIBA Stage 3-4). All aspects of this report are subject to development by the design team and ultimately agreement with the Building Control Body including their statutory consultation with London Fire Brigade.

The project represents a part conversion, part new-build residential development, including two residential blocks, along with nine dwellinghouses (D1 to D9). Block 1 will be designed as a two-core building, whilst Block 2 will be designed as a single-stair block. Blocks 1 and 2 will both include topmost storey (5F) heights >11m and <18m. The dwellinghouses will include topmost storey (1F) heights of <4.5m.

The evacuation strategy for the residential units (flats and dwellinghouses) will be 'stay put' with only the residential unit of fire origin evacuating. Ancillary areas will employ simultaneous evacuation upon detection therein.

Sprinklers should be provided throughout Blocks 1 and 2. It should include a Category 2 system in accordance with BS 9251, with relevant enhancements to allow suitable coverage of ancillary areas.

Block 1 and 2 should include natural smoke shafts as ventilation for all staircase / lift lobbies. AOVs should be provided at high level above each staircase. Each lift bank should also include an evacuation lift.

The compartmentation strategy for the blocks should follow typical residential building design with compartment floors. All flats, corridors and ancillary areas should form individual 60-minutes fire compartments. The dwellinghouses should be separated by 60-minute compartment walls.

Although the proposed development does not include 'Relevant Buildings' as defined by Regulation 7(4), it is expected that all external wall and specified attachment materials meet the requirements of Regulation 7(2).

Access to the site will be via West End Road and Garden Close. Vehicle access is provided within 18m of the entrance to all common cores. A dry riser main should be included in Block 1 and 2. Vehicle access should be provided within 45m of all points within dwellinghouses.

## 2 INTRODUCTION

### 2.1 SCOPE

2.1.1 Solas Realta Ltd has been appointed to produce a Planning Fire Safety Strategy & Fire Statement report for the proposed new development at The Barn Hotel, West End Road, Ruislip HA4 6JB, consisting of two residential blocks, along with nine dwellinghouses. This report will mainly focus on the design requirements for the two residential blocks (Blocks 1 and 2), whilst also specifying outline fire safety requirements for the dwellinghouses, which include a lower design complexity.

2.1.2 The report is intended to provide an outline of the key fire safety considerations associated with the project in relation to the requirements of Part B of the Building Regulations as presented below:

- B1 – Means of warning and escape – (see Section 3).
- B2 – Internal fire spread (linings) – (see Section 4).
- B3 – Internal fire spread (structure) – (see Section 4).
- B4 – External fire spread – (see Section 5).
- B5 – Access and facilities for the fire service – (see Section 6).

2.1.3 This report also includes a Fire Statement form (presented in Appendix B) as required in support of the planning application, with respect to the London Plan Policy D12(B).

2.1.4 Solas Realta Ltd has not reviewed any issues within the project other than those identified in our report. Solas Realta Ltd offers no comment on any other aspects of the development and any absence of such comment should not be regarded as any form of approval.

2.1.5 This report is aimed at only providing supporting information for this planning application and does not represent a detailed fire safety strategy (to be developed at RIBA Stage 3-4). All aspects of this report are subject to development by the design team and ultimately agreement with the Building Control Body including their statutory consultation with London Fire Brigade.

### 2.2 REFERENCED INFORMATION

2.2.1 This report has been developed based upon information contained in the latest drawings provided by the Architect. This report should be read in conjunction with these drawings and other supporting documentation prepared and submitted by other consultants who are acting on behalf of the design team. Appendix A presents the drawing plan schedule.

2.2.2 This report is not intended to provide detailed system specifications, as this information is expected to be included within manufacturer's recommendations or British Standards. Therefore, all system designers should refer to the latest version of the British Standards referenced within this report and any associated manufacturer's recommendations.

### 2.3 DESIGN BASIS AND GUIDANCE

2.3.1 Approved Document B: Volume 1 (AD B) will be the design guidance document employed in order to indicate that the functional requirements of Part B of the Building Regulations have been satisfied. BS 9991 will be utilised in support of open-plan flat requirements.

2.3.2 Where departures from the guidance are proposed, compensatory provisions and / or qualitative arguments will be provided to demonstrate that the overall level of safety achieved by full conformance to the guidance documents is not compromised.

2.3.3 None of the proposed buildings are categorised as 'Relevant Buildings' as defined by Regulation 7 (i.e., buildings with a storey at least 18m above the ground level and which contains dwellings). However, it is also recommended that external wall construction meeting the requirements of Regulation 7(2) is utilised throughout, in order to ensure that functional requirements listed in Part B4, Schedule 1 of the Building Regulations are met.

### 2.4 PROJECT DESCRIPTION

2.4.1 The project represents a part conversion, part new-build residential development, including two residential blocks, along with nine dwellinghouses (D1 to D9), as presented in Table 1 and Figure 1. Block 1 will be designed as a two-core building, whilst Block 2 will be designed as a single-stair block. The residential blocks buildings will include ancillary areas (i.e., refuse stores, bin stores, plant rooms, etc.) on the ground floor. All above ground floors will include single storey residential units.

2.4.2 The dwellinghouses will be designed as two-storey dwellinghouses, including a protected stair.

2.4.3 The development boundaries are presented below and in Figure 1:

- To the North, by a London Underground line;
- To the South and East, by Garden Close;
- To the West, by West End Road.

Building	Building Height <sup>(1)</sup>	Storeys	Staircases	AWFSS
Block 1	>11m, but <18m	GF+5	2	Yes
Block 2	>11m, but <18m	GF+5	1	Yes
Dwellinghouses (D1 to D9)	<4.5m	GF+1	1 (each)	No

#### Notes

1. Building height is measured in accordance with Diagram D6 of Approved Document B.

Table 1 - Building Heights and Provisions



Figure 1 – Indicative Site Plan

### 3 MEANS OF WARNING AND ESCAPE

#### 3.1 EVACUATION STRATEGY

- 3.1.1 The evacuation strategy in the residential flats will be based on a 'stay put strategy, whereby residents in unaffected flats may remain protected within their residential unit until such time as the Fire Service initiate a phased evacuation of the building (i.e. for Blocks 1 or 2), or residents decide to evacuate.
- 3.1.2 The evacuation strategy within ancillary areas of Blocks 1 and 2 (i.e., refuse stores, bike stores and plantrooms) will be simultaneous (for each building separately), whereby if a fire detector or manual call point is activated, sounders will activate in these areas only.

#### 3.2 FIRE ALARM & DETECTION SYSTEM (FADS)

- 3.2.1 In all residential flats, a Grade 1 Category LD1 FADS should be provided in accordance with BS 5839-6. Only the sounders within the flat where a local detector activates should operate.
- 3.2.2 For each block, in the common areas, a Category L5 FADS should be provided in accordance with BS 5839-1. The residential flats will not be covered by this system.
- 3.2.3 All two-storey dwellinghouses will be individually covered by Grade D1 Category LD2 FADS in accordance with BS 5839-6.

#### 3.3 AUTOMATIC WATER FIRE SUPPRESSION SYSTEM (AWFSS)

- 3.3.1 Blocks 1 and 2 include a top floor in excess of 11m, therefore AWFSS should be provided throughout these buildings as a minimum.
- 3.3.2 The system should be Category 2 in accordance with BS 9251 for both blocks, with enhancements to allow suitable coverage to ancillary areas, as per BS 9251 guidance.
- 3.3.3 The system should be developed further with a specialist designer post planning.

#### 3.4 SMOKE VENTILATION

- 3.4.1 Common residential corridors should include smoke ventilation provisions as presented below:
  - a) Block 1: A natural smoke shaft achieving a minimum free area of 1.5m<sup>2</sup> serving all lift / staircase lobbies/corridors on all floors.
  - b) Building 2: A natural smoke shaft achieving a minimum free area of 1.5m<sup>2</sup> serving all lift / staircase lobbies/corridors on all floors.
  - c) The number and extent of natural smoke shafts currently shown may be able to be adjusted in order to improve design efficiency.
- 3.4.2 Natural smoke shafts should achieve a minimum free area of 1.5m<sup>2</sup> and be designed in accordance with Sections 3.50 to 3.53 of AD B, as well as the 'Guidance on Smoke Control to Common Escape Routes in Apartment Buildings (Flats and Maisonettes)' issued by the Smoke Control Association (SCA). Special attention should be drawn to smoke shaft requirements at roof level i.e. height of smoke shaft above roof level.
- 3.4.3 An AOV achieving a minimum of 1.0m<sup>2</sup> should be provided at the head of all staircases.
- 3.4.4 All other ancillary areas will be accessed directly from the outside and not connect internally to the staircases, additional ventilation provisions are not proposed at this stage.

#### 3.5 HORIZONTAL ESCAPE (FLATS)

- 3.5.1 Residential flats in Blocks 1 and 2 are on a single level and will all be designed as open-plan flats, noting that all occupants are assumed to evacuate independently.
- 3.5.2 Open plan flats will be designed in accordance with Section 9.7 of BS 9991, with a maximum size of 16m x 12m, a minimum ceiling height of 2.25m and a maximum travel distance of 20m.
- 3.5.3 Kitchens which are not enclosed will be subject to further engineering review as design progresses. Cooking appliances in all flats should be located a minimum of 1.8m from escape routes, including escape from the balconies.
- 3.5.4 The common corridors in Block 1 will represent a hybrid approach with Diagram 3.7a) and b) of AD B for single-direction of travel corridors, and Diagram 3.8a) of AD B for corridors with escape in multiple directions. The relevant diagrams from AD B are presented in Figure 2 and Figure 3.
- 3.5.5 The common corridors in Block 2 will be designed in line with Diagram 3.7a) of AD B. Travel distance limitations are presented in Table 2 which are noted to be achieved on all levels.
- 3.5.6 Escape routes should include suitable emergency lighting in accordance with the relevant parts of BS 5266 and emergency escape signage in accordance with the relevant parts of BS 5499.
- 3.5.7 External escape routes should conform to Approved Document M. All routes from a final exit door and up to a Fire Muster Point are considered external escape routes.

#### 3.6 COMMON STAIRS (FLATS)

- 3.6.1 The two blocks of flats will be provided with 3 common stairs. The staircases should:
  - Achieve 1100mm minimum clear width.
  - Be constructed of materials achieving European Class A2-s3, d2 or better.
  - Stairs should discharge directly to a final exit at the base of the stair.
  - The discharge route from the base of a staircase to outside should be afforded with the same level of protection (including smoke ventilation) as the staircase served.
- 3.6.2 In support of London Plan Policy D5 requirement, it is proposed to include an evacuation lift as part of each lift bank in each block.
- 3.6.3 Evacuation lifts should be designed, installed and maintained in accordance with BS EN 81-20 and BS EN 81-70 and should only open into a ventilated lobby.
- 3.6.4 All common stair cores in Blocks 1 and 2 will be provided with special wayfinding signage in support of firefighting operations.
- 3.6.5 It is recommended as good practice that a refuge area is provided for each evacuation lift on each above ground floor level in order to assist with vertical evacuation. The dimensions of a refuge are 900mm by 1400mm. A clear width of at least 1500mm should be provided outside each lift to satisfy Part M.

#### 3.7 MEANS OF ESCAPE (DWELLINGHOUSES)

- 3.7.1 All individual dwellinghouses will include a total of two-storeys (G+1), with the finished floor level of the top storey expected to be less than 4.5m above adjoining ground level. The means of escape should comply with Diagram 2.1b) of AD B (as shown in Figure 4).
- 3.7.2 As such, the means of escape for the dwellinghouses are expected to be provided via protected stairs (one in each dwellinghouse), serving all habitable rooms, and discharging to outside at ground level.

3.7.3 The protected stairs are expected to be enclosed in 30-minute fire resisting construction, including FD30 doors.

3.7.4 As an alternative to protected stairs, all dwellinghouses may be provided with doors or window escape for all habitable rooms. Doors and windows utilised for emergency escape should meet the requirements listed in Paragraph 2.10 of AD B.

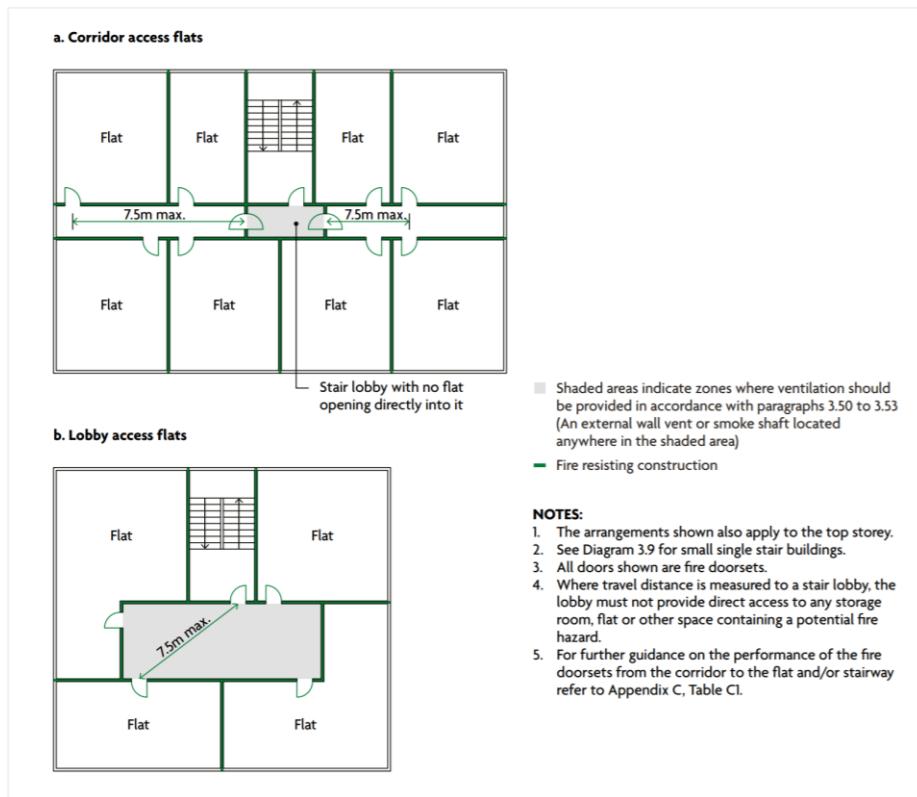


Figure 2 - Extract from Diagram 3.7 of AD B

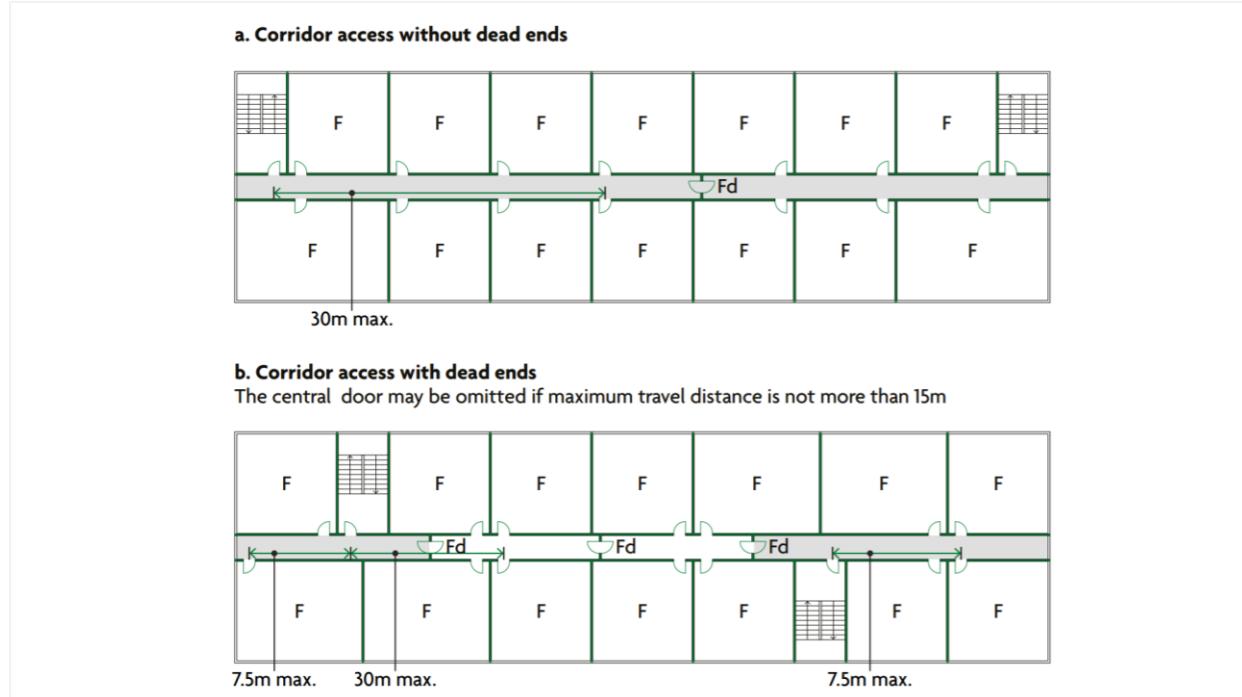


Figure 3 - Extract from Diagram 3.8 of AD B

Area	Single Direction Travel Distance <sup>(1)</sup>	Multiple Direction Travel Distance
Protected Entrance Halls	9	N/A
Open Plan Flats	20	N/A
Ventilated Common Corridors	7.5	30
Refuse Stores, Bike Stores, Plantrooms	9	18

Notes:

1. Travel distances should be measured up to a place where two alternate escape routes are available, either at least 45° apart or separated by fire resisting construction.

Table 2 – Travel Distance Limitations

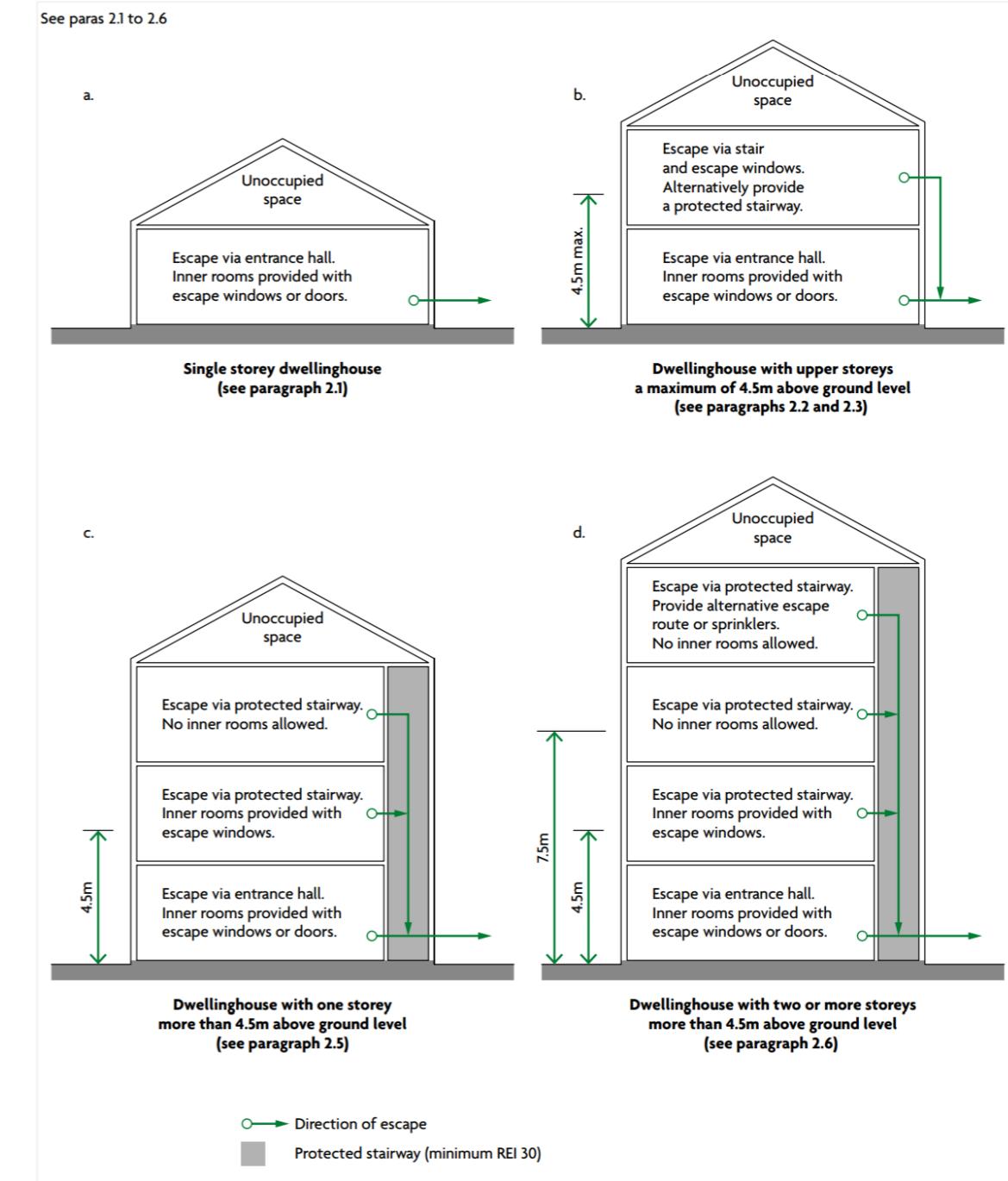


Figure 4 - Extract from Diagram 2.1 of AD B

## 4 INTERNAL FIRE SPREAD

### 4.1 LOADBEARING ELEMENTS OF STRUCTURE

4.1.1 All elements of structure for Blocks 1 and 2 should achieve 60-minutes fire-resistance. All dwellinghouse should achieve a structural fire resistance of 30-minutes. An element of structure is any member forming part of the structural frame or any other beam or column.

### 4.2 COMPARTMENTATION

4.2.1 Within Blocks 1 and 2, all floors should be compartment floors achieving 60 minutes fire resistance. Therefore, any shafts penetrating compartment floors (i.e., escape staircase, lifts, smoke shafts, service risers, etc.) should be constructed as protected shafts achieving the same level of fire resistance as the compartment floors.

4.2.2 Any dwelling or common corridor / lobby should be constructed as a separate fire compartment achieving a minimum of 60 minutes fire resistance. See also Section 5.4.1 for junctions with a roof.

4.2.3 Common corridors within Blocks 1 and 2 should be subdivided using construction achieving 30 minutes fire resistance to separate the ventilated portion from the unventilated portion.

4.2.4 The overall compartmentation in the buildings should be in accordance with Table 4. Fire resisting walls should be constructed effectively up to each compartment floor or the roof.

4.2.5 The compartment/party walls separating dwellinghouses should achieve a fire resistance of 60-minutes throughout. Any elements of structure supporting the compartment walls should achieve the same rating as the compartment walls.

4.2.6 Within dwellinghouses, the protected stairs should be designed as 30-minute fire-resisting enclosures.

4.2.7 If a fire separating element is to perform as intended, every joint or imperfect fit, or opening to allow services to pass through the element, should be adequately protected by sealing or fire stopping to the same fire resistance rating so that the fire resistance of the element is not impaired.

### 4.3 ANCILLARY AREAS

4.3.1 Ancillary areas include refuse stores, bike stores and plantrooms. These areas should be constructed to form 60-minute fire resistant compartments in both Blocks 1 and 2.

4.3.2 Ancillary areas will be located only on the ground floor and will generally be accessed only directly from the outside. These will not connect to the staircases or common corridors at ground floor, unless as discussed in Section **Error! Reference source not found.**

4.3.3 Service risers should be fire stopped at each floor level and not open directly into a staircase.

### 4.4 PROTECTION OF DUCTWORK

4.4.1 Ductwork passing through fire resisting elements should either be fire resisting to the same rating or be provided with fire and smoke dampers interlinked to the FADS. However, fire and smoke dampers are not suitable for escape stairs, where fire resisting ductwork should be provided.

### 4.5 CONCEALED SPACES

4.5.1 Cavity barriers should be provided within cavities for all other areas, in all the following locations:

- At the edge of cavities, including around openings (windows, doors, service penetrations, etc).
- At the junction of a cavity and a compartment floor / wall or a fire resisting partition.
- To limit cavities to 20m (if surfaces exposed achieve Class C-s3, d2 or better) or 10m.

### 4.6 WALL AND CEILING LININGS

4.6.1 Restrictions are placed on the wall and ceiling lining materials. This is to limit spread of fire and production of smoke in specific areas. The surface lining of the walls and ceilings should meet the classifications shown in Table 3.

Classification of Linings	European Classification
Circulation Spaces Outside Dwellings	B-s3, d2
Circulation Spaces Within Dwellings	C-s3, d2
Other Rooms	C-s3, d2
Small Rooms (not more than 4m <sup>2</sup> )	D-s3, d2

Table 3 – Wall and Ceiling Linings

Building Element	Minimum Resistance Rating <sup>(1)</sup>	Method of Exposure	Fire Doors <sup>(2)</sup>
Structure (Blocks 1 and 2)	60 R	Exposed faces	N/A
Structure (Dwellinghouses)	30 R <sup>(3)</sup>	Exposed faces	N/A
Compartment Floors (Blocks 1 and 2)	60 REI	From below	N/A
Common Stairs (Blocks 1 and 2)	60 REI	Each side separately	FD30S
Lifts	60 REI	Each side separately	FD30
Service Shafts	60 REI	Each side separately	FD60S
Smoke Shafts	60 REI	Each side separately	FD60S
Residential Flats	60 REI	Each side separately	FD30S
Common Corridors	60 REI	Each side separately	FD30S
Ancillary Rooms	60 REI	Each side separately	FD60S
Protected Façade (Dwellinghouses) <sup>(4)</sup>	30 REI	From inside	N/A
Protected Façade (Blocks) <sup>(4)</sup>	60 REI	From inside	N/A
Corridor Sub-divisions	30 REI	Each side separately	FD30S
Protected Internal Stairs (Dwellinghouses)	30 REI	Each side separately	FD30
Cavity Barriers	60 REI	Each side separately	FD30

Notes:

1. “R”, “E” and “I” – are the European classification for fire performance in respect to load-bearing capacity, integrity and insulation tested to the relevant part of BS 476 or European Standard.
2. All fire doors should be tested to the relevant part of BS 476 or European Standard. “S” denotes smoke seal.
3. Upgraded to 60-minutes for all structural elements supporting compartment walls between dwellinghouses.
4. Extent of protected areas as per Table 5.

Table 4 – Fire Resisting Construction

## 5 EXTERNAL FIRE SPREAD

### 5.1 RELEVANT BOUNDARIES

5.1.1 Relevant boundaries depend on the site layout as presented below and in Figure 5:

- Where a building is facing a public road, railway, canal or river, the relevant boundary is taken as the centreline of that public road, railway, canal, or river (boundaries 1, 6, 10, 15 and 19).
- Where a building is facing only the site boundary, the relevant boundary should be taken as the actual site boundary (boundaries 2, 8, 9, 21, 25 and 26).
- For large sites (more than one building), relevant boundaries should be taken as notional boundaries between buildings on the same site (boundaries 3-5, 7, 12-18, 20, 22-24 and 27).

### 5.2 EXTERNAL WALL CONSTRUCTION

5.2.1 The proposed Blocks 1 and 2 are not classified as 'Relevant Buildings' as defined by Regulation 7 (i.e., buildings with a storey at least 18m above the ground level and which contains dwellings). However, considering the June 2022 updates to AD B for building >11m, and the functional requirements of the Building Regulations (Part B4), it is expected that all materials forming part of external walls and specified attachments comply with Regulation 7(2).

5.2.2 Materials forming part of the external walls must achieve European Class A2-s1, d0 or better in accordance with BS EN 13501. Specified attachments for external walls such as balconies should also achieve European Class A2-s1, d0 or better. The Designer should refer to Regulation 7 of the Building Regulations for further details on a 'Relevant Building', including information with respect to which items are exempt, as listed in Regulation 7(3).

5.2.3 Fire resisting external wall areas achieving 60 minutes fire resistance should be provided within 1.8m either side of re-entrant corners (i.e., corners of 130° or less) in order to limit fire spread in between different fire compartments (including, but not limited to, flats and staircases). This requirement will also apply to balcony balustrades.

5.2.4 Cavity barriers should be provided within external wall cavities, in accordance with Section 4.5.1.

### 5.3 SPACE SEPARATION

5.3.1 To prevent the risk of external fire spread from one building to another, the amount of unprotected area that is allowed on an elevation should be limited, or the separating distance should be sufficient as to reduce the risk of excessive radiation causing fire spread.

5.3.2 BR 187 has been employed in order to assess space separation. The radiation intensity has been selected as 84kW/m<sup>2</sup> for residential areas and 168kW/m<sup>2</sup> for ancillary rooms. The separation distance required has been halved (for Blocks 1 and 2) due to the provision of AWFSS throughout the residential blocks.

5.3.3 Table 5 present the results of the assessment, indicating the largest enclosing rectangle on each elevation. It is expected that some fire resisting facade will be required on multiple elevations of the dwellinghouses in order achieve the maximum unprotected allowable areas in Table 5.

### 5.4 ROOF COVERINGS

5.4.1 Junctions of a compartment wall with a roof should include an area 1500mm wide on each side of the wall, with a roof covering of  $B_{ROOF}(t4)$  on substrate/deck achieving A2-s3, d2 or better. Performance of the resistance of roofs to external fire exposure, is measured in terms of penetration through the roof construction and the spread of flame over its surface. The roof should achieve European Class  $B_{ROOF}(t4)$ .

5.4.2 Green roofs and walls should comply with DCLG publication 'Fire Performance of Green Roofs and Walls'.

Building Elevation	Enclosing Rectangle (H x W)	Unprotected % Allowed	Minimum Boundary Distance Required (m)	Actual Boundary Distance (m)	Maximum Unprotected Area (m <sup>2</sup> )
Block 1					
Any (flats)	3m x 12m	100	1.8	>1.8	All
2,3 (ancillary)	3m x 12m	100	2.8	>2.8	All
Block 2					
Any (flats)	3m x 15m	100	2.0	>2.0	All
10 (ancillary)	3m x 9m	100	2.5	>2.5	All
Dwellinghouses (labelling convention as per Figure 1)					
12, 13, 14 (D1)	6m x 15m	40	3.0	>3.0	36
16, 18 (D2), 21, 23 (D3-5)	6m x 12m	40	3.0	>3.0	28
24 (D6-9)	6m x 12m	30	2.0	>2.0	21
22 (D3-5)	6m x 6m	50	2.5	>2.5	18
27 (D6-9)	6m x 6m	70	3.0	>3.0	25
17 (D2)	6m x 18m	30	2.5	>2.5	32
26 (D6-9)	6m x 12m	20	1.0	>1.0	14
All other elevations	6m x 18m	100	6.5	>6.5	All

Table 5 – Space Separation Calculations



Figure 5 – Elevation Identification (Site Plan)

## 6 ACCESS AND FACILITIES FOR THE FIRE SERVICE

### 6.1 VEHICLE ACCESS

6.1.1 Access to and around the site will be provided via both West End Road and Garden Close. From here, vehicle access is provided on site via the new private roads and car parking areas around all buildings. Vehicle access will be provided within 18m and line of sight of the entrance to all cores, including the dry rising inlet mains, where applicable. The access route is presented in Figure 6.

6.1.2 Any access or security measures in and around the site (e.g., bollards preventing vehicle access) should be by-passable by the Fire Service. The details of the bypass arrangements should be developed and agreed with the Fire Service.

6.1.3 Due care should be given to ensure that the vehicle access route meets the requirements of a pumping appliance as presented in Table 6. These values have been extracted from GN29 as issued by London Fire Brigade, which align with AD B.

6.1.4 Even if it is expected that this is achieved via West End Road and Garden Close, the design team should confirm, including using a swept path analysis tracking exercise, that the new private roads and car parking areas on site achieve these requirements.

6.1.5 Turning facilities should be provided in any dead-end access route that is more than 20m long.

### 6.2 FACILITIES FOR THE FIRE SERVICE

6.2.1 Access into the residential blocks (Blocks 1 and 2) for Fire Service personnel is provided via the entrance doors to each core. The access points will adjoin the dry rising main inlet points as presented in Figure 6.

6.2.2 The main core in Block 1 (West Core) and the single core in Block 2 will include a dry rising main in order to ensure all areas on each floor are within 45m along a route suitable for laying hose from a fire main outlet. All dry rising mains should be in accordance with BS 9990.

6.2.3 Access to the dwellinghouses will be provided externally, with all dwellinghouse areas expected to be located within 45m, on a route suitable for laying hose, from FRS parking locations.

6.2.4 A summary of the provisions in support of firefighting operations is presented in Table 7.

6.2.5 Wayfinding signage for the responding Fire Service should be provided in Blocks 1 and 2 including:

- Each floor level clearly marked on each landing within each staircase.
- Flat indicator signs informing the flat number accessed for each storey.

### 6.3 WATER SUPPLIES

6.3.1 There should be a hydrant in accordance with BS 9990 within 90m of each fire main inlet for Blocks 1 and 2.

6.3.2 A site survey should be carried out in order to establish the extent of existing hydrants. Where these are found to be insufficient, new private hydrants should be provided.

Appliance type	Minimum width of road between kerbs	Minimum width of gateways	Minimum turning circle between kerbs	Minimum turning circle between walls	Minimum clearance height	Minimum carrying capacity
Pump	3.7m	3.1m	16.8m	19.2m	3.7m	14 tonnes

Notes:

1. Fire appliances are not standardised. The local Fire Service may use other dimensions.

Table 6 – Typical Fire Service Vehicle Access Route Specification

Building	Cores	Areas served	Dry riser	Smoke ventilation
Block 1	2	G+5	Yes (West Core)	Yes
Block 2	1	G+5	Yes	Yes
D1-9	1 (each)	G+1	No	No

Table 7 – Summary of Firefighting Provisions

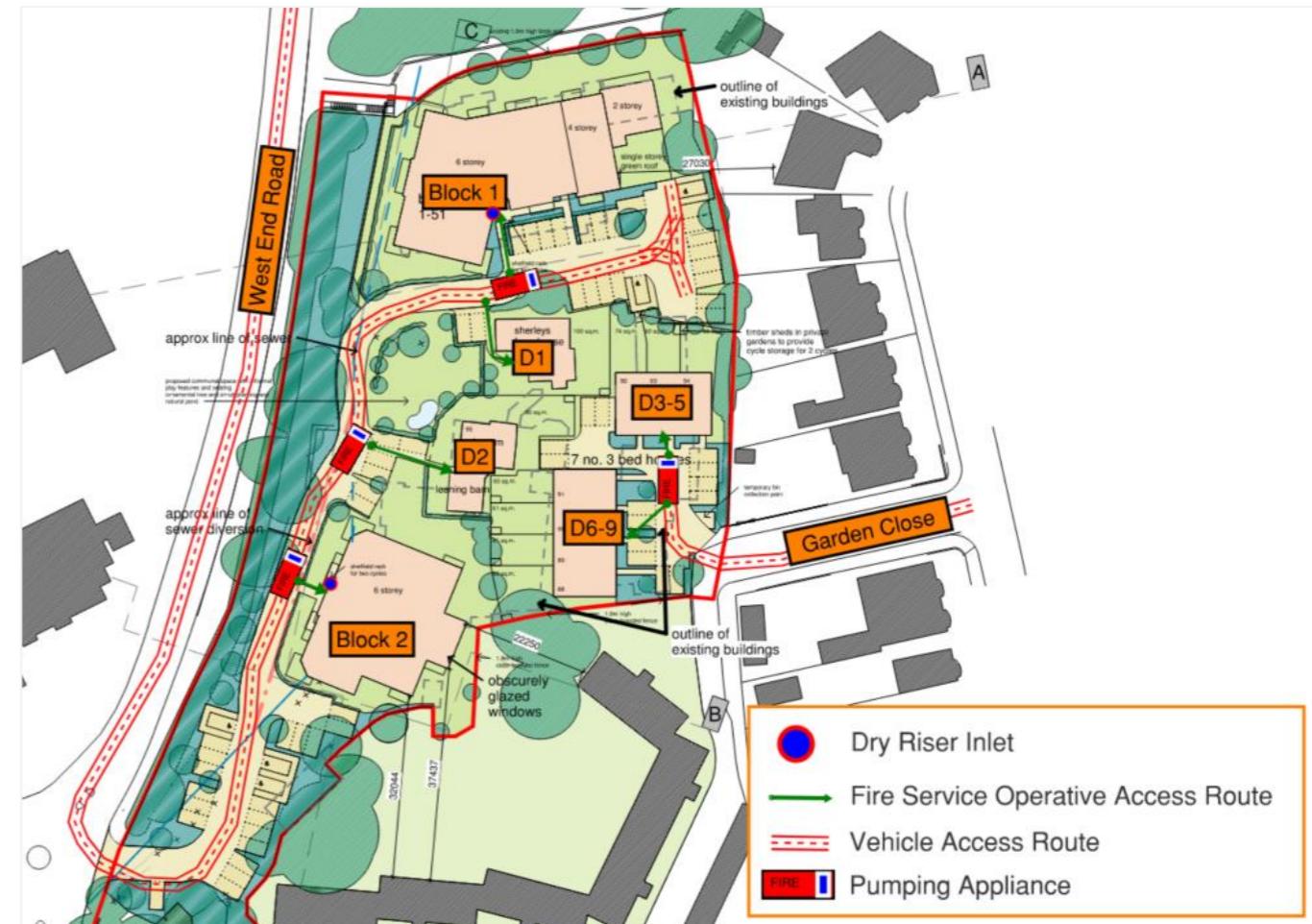


Figure 6 – Fire Service Vehicle Access

## 7 APPENDIX A – DRAWING PLAN SCHEDULE

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### 7.1 REFERENCED INFORMATION

7.1.1 This report has been developed based upon information contained in the latest drawings provided by the design team. This report should be read in conjunction with these drawings and other supporting documentation prepared and submitted by other consultants who are acting on behalf of the design team. Table 8 presents the drawing plan schedule.

#### 7.1.2 Drawing Plan Schedule

Drawing Number	Description	Revision	Date
22 0063-1	Proposed Site Layout Plan	Q	22.02.2023
22 0063-100	Building 1 North and North-West Elevations	E	22.02.2023
22 0063-101	Building 1 South and East Elevations	E	22.02.2023
22 0063-102	Building 1 Ground Floor Plan	F	20.03.2023
22 0063-103	Building 1 First Floor Plan	C	22.02.2023
22 0063-104	Building 1 Second Floor Plan	C	22.02.2023
22 0063-105	Building 1 Third Floor Plan	C	22.02.2023
22 0063-106	Building 1 Fourth and Fifth Floor Plans	C	22.02.2023
22 0063-200	Building 2 Elevations	F	26.01.2023
22 0063-201	Building 2 Ground and First Floor Plans	F	20.03.2023
22 0063-202	Building 2 Second and Third Floor Plans	C	26.01.2023
22 0063-203	Building 2 Fourth and Fifth Floor Plans	C	26.01.2023
22 0063-301	The Ash 3 Bed Terrace 3	A	29.10.2021
22 0063-302	The Ash 3 Bed Terrace 4	A	29.10.2021
22 0063-402	Farm House Conversion – Proposed Plans	A	16.02.2023
22 0063-503 A	The Leaning Barn and Oak Room Proposed Floor Plans and Elevations	N/A	11.09.2022

Table 8 – Drawing Plan Schedule

## 8 APPENDIX B – LONDON PLAN POLICY FIRE STATEMENT

Application Information	
Site address	The Barn Hotel, West End Road, Ruislip, HA4 6JB
Description of proposed development including any change of use (as stated on the application form):	<p>The project represents a part conversion, part new-build residential development, including two residential blocks, along with nine dwellinghouses (D1 to D9). Block 1 will be designed as a two-core building, whilst Block 2 will be designed as a single-stair block. The residential blocks buildings will include ancillary areas (i.e., refuse stores, bin stores, plant rooms, etc.) on the ground floor. All above ground floors will include single storey residential units.</p> <p>The dwellinghouses will be designed as two-storey dwellinghouses, including a protected stair.</p>
Name of person completing the fire statement, relevant qualifications and experience.	<p>John Dowd BEng (Hons) MSc CEng MIFireE MCABE</p> <p><u>Professional Accreditation and Registrations</u></p> <ul style="list-style-type: none"> <li>• UK Engineering Council   Chartered Engineer (CEng)</li> <li>• The Institution of Fire Engineers   Member (MIFireE)</li> <li>• Chartered Association of Building Engineers   Member (MCABE)</li> </ul> <p><u>Academic Qualifications</u></p> <ul style="list-style-type: none"> <li>• Master of Science in Fire Safety Engineering   University of Central Lancashire</li> <li>• Bachelor of Engineering in Fire Engineering   University of Central Lancashire</li> </ul> <p><u>Experience</u></p> <ul style="list-style-type: none"> <li>• Director   Solas Realta Ltd   2018 – Present</li> <li>• Director   Clarke Banks Ltd   2016 – 2018</li> <li>• Principal Fire Engineer   3SFire Ltd   2014 – 2016</li> <li>• Senior Fire Engineer   Hampshire Fire and Rescue Service   2014 – 2016</li> <li>• Fire Safety Inspector   Hampshire Fire and Rescue Service   2013 - 2014</li> <li>• Fire Alarm Engineer - Cube Fire and Security   2006 -2013</li> </ul>
State what, if any, consultation has been undertaken on issues relating to the fire safety of the development; and what account has been taken of this.	No consultation has been undertaken up to this point with any statutory body such as the local fire service or the building safety regulator / local authority.
Signature	
Date	17/03/2023

London Plan Policy Requirements	
Introduction	The New London Plan (2021) introduces requirements in relation to planning fire safety. The relevant fire safety requirements are described under London Plan Policy D5(B5) and London Plan Policy D12.
<u>London Plan Policy D5(B5)</u> requires the following: All schemes should "...be designed to incorporate safe and dignified emergency evacuation for all building users. In all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building".	<p><b>Evacuation Lifts</b></p> <p>The proposed blocks (Blocks 1 and 2) will each include a single lift bank, with two lifts per lift bank. It is expected that at least one lift per block will be designed as evacuation lifts in support of the aforementioned policy.</p> <p>The evacuation lifts should be designed based on the guidance presented in BS EN 81-20, BS EN 81-70, BS EN 81-72 and BS 9999 (Annex G).</p>

London Plan Policy D12 requires the following:

"All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor.

The statement should detail how the development proposal will function in terms of:

- a. the building's construction: methods, products and materials used, including manufacturers' details
- b. the means of escape for all building users: suitably designed stair cores, escape for building users who are disabled or require level access, and associated evacuation strategy approach
- c. features which reduce the risk to life: fire alarm systems, passive and active fire safety measures and associated management and maintenance plans
- d. access for fire service personnel and equipment: how this will be achieved in an evacuation situation, water supplies, provision and positioning of equipment, firefighting lifts, stairs and lobbies, any fire suppression and smoke ventilation systems proposed, and the ongoing maintenance and monitoring of these
- e. how provision will be made within the curtilage of the site to enable fire appliances to gain access to the building
- f. ensuring that any potential future modifications to the building will take into account and not compromise the base build fire safety/protection measures."

### **Building Construction Methods**

The structure of the buildings is expected to be formed of traditional construction materials i.e. reinforced concrete or steel. The structure will be afforded with the appropriate fire resistance utilising a certified structural fire protection solution. It is recommended that the external wall construction complies with the requirements listed in Regulation 7 of the Building Regulations 2010 (as amended to date).

### **Means of Escape**

The individual flats in Blocks 1 and 2 will be designed as open-plan flats, following the requirements of contemporary guidance.

The common areas of the blocks will include ventilated protected lobbies, with Block 1 being designed as a two-stair block, and Block 2 being designed as a single stair block, in line with contemporary AD B requirements.

Escape for disabled persons will be supported by the single evacuation lifts provided within either block.

The dwellinghouses will each include a protected internal stair serving all habitable rooms, and discharging directly to outside at ground floor. Alternatively, the dwellinghouses may be provided with escape via windows or doors in all habitable rooms.

### **Features which Reduce the Risk to Life**

All flats will be covered using by a Fire Alarm and Detection System (FADS), designed to BS 5839-6. The common areas and ancillary areas of either block will be covered by FADS designed to BS 5839-1, intended to support the smoke ventilation strategy and the evacuation strategy for ancillary areas.

The dwellinghouses will be covered by standalone FADS systems, designed to BS 5839-6.

Due to the building height, both blocks will be covered by a sprinkler system, designed to BS 9251:2021.

The common areas of each block will be ventilated using natural smoke shafts (to common corridors and stair lobbies) and high level automatically openable vents (to stair cores).

The compartmentation strategy should be designed to support the proposed stay-put evacuation strategies for residential flats, in line with contemporary guidance. All terraced dwellinghouses should be separated by 60-minute compartment walls.

All passive and active fire safety systems should be maintained in line with manufacturers requirements and the relevant British Standards.

### **Access for Fire Service Personnel and Equipment**

Vehicle access to the two blocks and dwellinghouses will be provided via West End Road and Garden Close. This will allow fire service operatives to park within 18m of the entrance points to either block, and within 45m from all points within the dwellinghouses.

Fire service vehicles access routes should be provided in line with the requirements listed in London Fire Service Guidance Note 29.

The West Core in Block 1, and the single core in Block 2 will be provided with a dry rising main, designed to BS 9990, to include outlets on full level landings on all floors. The dry riser inlets are expected to be provided immediately adjacent to the entrance point to the stair core, within a clear line of sight from the fire service vehicle parking location.

Access to the ground floor ancillary areas will be provided directly from the outside. All areas within flats will be located within 45m hose laying distance from a dry riser outlet.

All areas within the dwellinghouses will be provided within 45m from the fire service parking locations.

Hydrants should be provided within 90m from dry riser inlet points, and within 90m from access points to dwellinghouses. A site survey and/or consultation with the Local Fire Service is to be undertaken to ascertain the presence and operational status of existing hydrants. If sufficient hydrant coverage is not currently provided additional hydrants shall be required.

### **Record Keeping**

This planning fire strategy report should be further developed as design progresses into a full detailed fire strategy. The detailed fire safety strategy report, as well as all relevant fire safety information, including but not limited to all active and passive fire safety system documents, should be handed over to the building owner / operator in accordance with Regulation 38. Any subcontractors or operatives conducting maintenance or any building works within the building or any other stakeholders as appropriate should also receive the relevant fire safety information in order to ensure that all maintenance, operations or building works are in accordance with the detailed fire safety strategy for the building, in line with Golden Thread requirements.